

jeeling in May, 1970. Holotype male (Type no. 60, B.U. Ent.) in the collections of insects at the department of Zoology, University of Burdwan, Burdwan.

*Female*: unknown.

The present species has been named *Allo-trissocladius acutus* sp. nov. in view of its narrow and pointed anal point. The species shows close similarities with *A. amphibius* Freeman from West Australia in some aspects but the differences in the setae of thorax, wing with

its venation and structure of male hypopygium are sufficient to treat the species as a new one.

#### ACKNOWLEDGEMENTS

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*nus*, *Trissocladius*, *Zalutschia*, *Paratrissocladius* and some related genera (Chironomidae, Diptera). *Bull. Fish. Res. Bd., Canada* 195: 1-287.

### A NEW SPECIES OF THE GENUS *HERCULIA* WALKER FROM NORTH INDIA (LEPIDOPTERA: PYRALIDAE: PYRALINAE)<sup>1</sup>

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(With seven text-figures)

During an extensive survey of Pyralid moths of North India, we collected six species belonging to the subfamily Pyralinae. These six species included two new species, one of which has been already described (Rose and Pajni 1978). The second species, according to Hampson's key (1896), is clearly referable to the genus *Herculia* Walker, which includes fourteen other species from India. The species under reference is distinctly different from all other *Herculia* spp. (Hampson 1896a, 1896b, 1916, 1917) and hence, is being described as

a new species. The nomenclature of Klots (1970) has been followed for genitalic structures.

#### Genus *Herculia* Walker

*Herculia* Walker, 1859, *Cat. Lep. Het. Brit. Mus.*, 19: 807. Type species: *Herculia marthalis* Walker (Range: Universally distributed).

#### *Herculia hansii* sp. nov. (Figs. 1-7)

*Head*: Vertex covered with densely arranged long and ochreous scale; frons profusely scaled with ochreous brown scales. *Antenna*: shorter than fore wing; scape over laden with brown scales; flagellum annulated and finely ringed with fusco-rufous and pale brown scales; minutely pilose and without any bran-

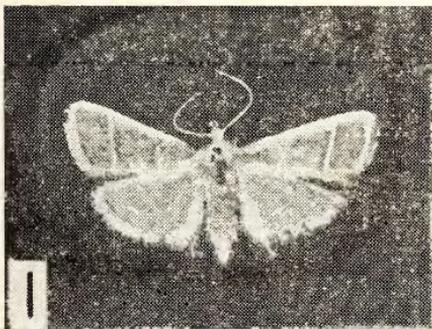
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NEW DESCRIPTIONS

ches in male. *Eye*: large, with a row of greyish brown scales behind. *Ocellus* absent.

*Labial palpus*: upturned; second segment long, reaching vertex of head; third segment pro-rect, short and acuminate; all segments thickly scaled with brown scales, irrorated with fuscous and fulvo-rufous scales. *Maxillary palpus*: reduced and filiform, covered with light brown scales. *Proboscis*: long, furnished with fuscous brown scales at base. Posterior end of head densely clothed with ochreous brown scales.



*Herculia hansii* sp. nov.  
Fig. 1. Photograph of the adult.

*Thorax*: covered with dull green scales dorsally; scales on tegula reaching beyond metathorax; white ventrally.

*Fore wing*: Anterior margin straight; apex rounded; termen evenly curved; tornus rounded; posterior margin straight. Ground colour dull green, uniformly and finely irrorated with white scales; the costal margin yellowish brown; a slightly curved white antemedial line from costa to inner margin; an inwardly oblique and straight white postmedial line from costa to anal margin; margin whitish; marginal fringe greyish. Discal cell shorter than half

the length of wing. Sc straight;  $R_1$  free, from anterior angle of cell;  $R_2$  free;  $R_3$ ,  $R_4$  and  $R_5$  stalked;  $M_1$  from base of  $R_{3+4+5}$ ;  $M_2$  and  $M_3$  from posterior angle of cell, closely approximated at origin for sufficient distance, diverging distally;  $Cu_1$  weakly curved towards base of  $M_3$ ;  $Cu_2$  from cell at about two-third the length of cell; 3A making a small loop at base of 2 A.

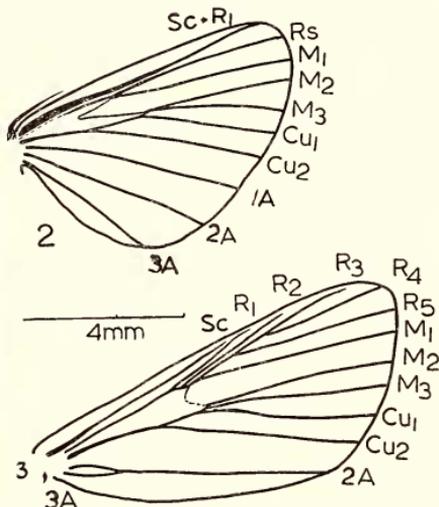
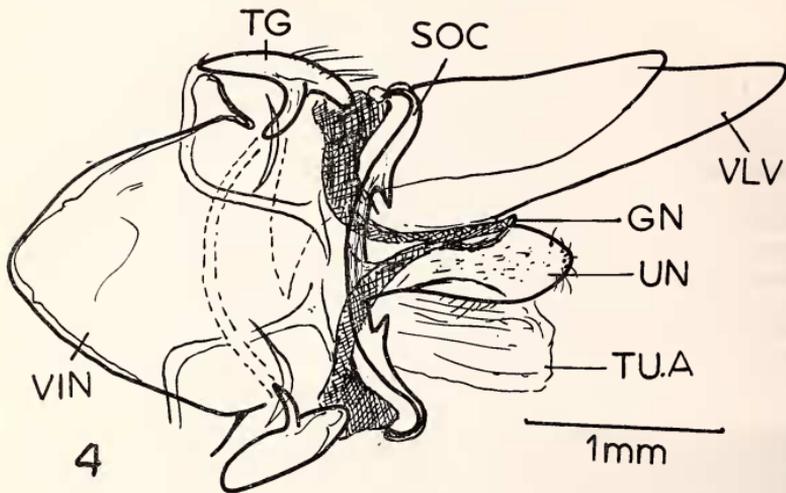


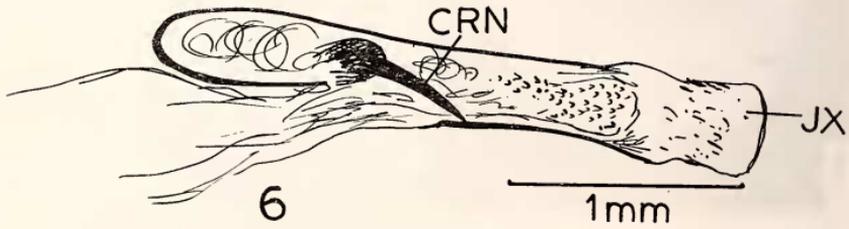
Fig. 2. Fore wing. Fig. 3. Hind wing.  
Abbreviations:

1A, First anal vein; 2A, Second anal vein; 3A, Third anal vein;  $Cu_1$ , First cubital vein;  $Cu_2$ , Second cubital vein;  $M_1$ , First median vein;  $M_2$ , Second median vein;  $M_3$ , Third median vein;  $R_1$ , First radial vein;  $R_2$ , Second radial vein;  $R_3$ , Third radial vein;  $R_4$ , Fourth radial vein;  $R_5$ , Fifth radial vein;  $R_s$ , Radial sector; Sc, Subcosta; Sc.  $R_1$ , Stalk of Sc and  $R_1$ .

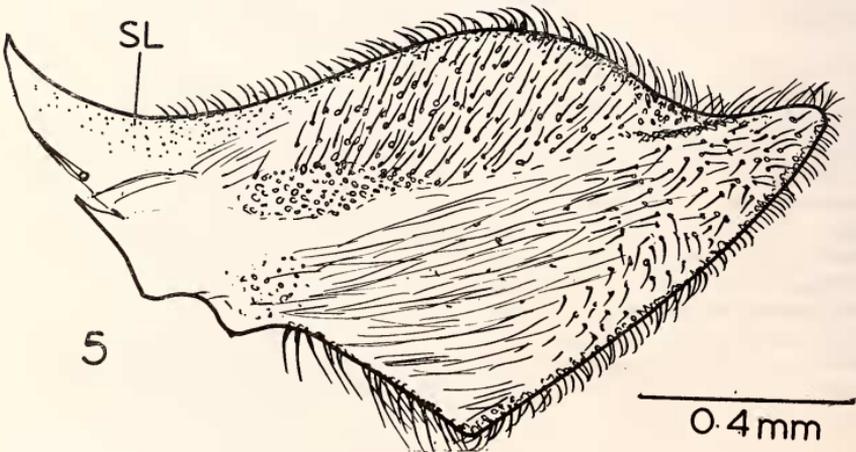
*Hind wing*: Costal margin straight; apex, termen, tornus and anal margin rounded. Ground colour dull green, finely irrorated with white scales; a fine white antemedial line from



4



6



5

Figs. 4-6. Parts of male genitalia.

Abbreviations:

CRN, Cornutus; GN, Gnathos; JX, Juxta; SL, Sacculus; SOC, Socii; TG, Tegumen; T.U.A, Tuba analis; UN, Uncus; VIN, Vinculum; VLV, Valva.

middle of cell to posterior margin; an inwardly oblique white postmedial line from  $Sc+R_1$  to tornus; margin white; marginal fringe grey, with a dark line. Discal cell slightly less than half the length of wing; discocellulars long, straight and oblique; cell closed.  $R_s$  apposed to  $Sc+R_1$  beyond cell for some distance;  $R_s+M_1$  stalked;  $M_2$  and  $M_3$  from the same point at posterior angle of cell, approximated at base, diverging distally;  $Cu_1$  diverging;  $Cu_2$  from slightly beyond middle of cell; three anals present.

*Legs*: covered with brown scales, irrorated with fuscous and fusco-rufous; tibiae prominently and densely scaled; outer spur on mid tibia two-third the length of inner; outer spur of anterior pair on hind tibia exactly one-third the length of inner; outer spur of distal pair slightly less than half the length of inner.

*Abdomen*: brown dorsally, irrorated with dull green, poorly ringed with white, under surface ochreous brown.

*Male genitalia*: Uncus more or less slender, rounded distally, tip very minutely setose; socii quite prominent, long, each with an angular process, completely naked; gnathos well developed, shorter than uncus, strongly sclerotized, its arms broad at base, meeting the distal end and drawn out into a short, more or less pointed process; tuba analis nearly as long as uncus, simple; tegumen reduced and well sclerotized; vinculum V-shaped; saccus rudimentary or absent. Valva moderately long, more or less boat-shaped, costal margin angulate, saccular margin arched, distal end narrow and rounded; costa not differentiated, sacculus very poorly demarcated at base only; harpe absent. Transtilla represented by a thin-strap; juxta more or less squarish. Aedeagus long and slender, its walls well sclerotized; vesica with a well developed long and thorn-

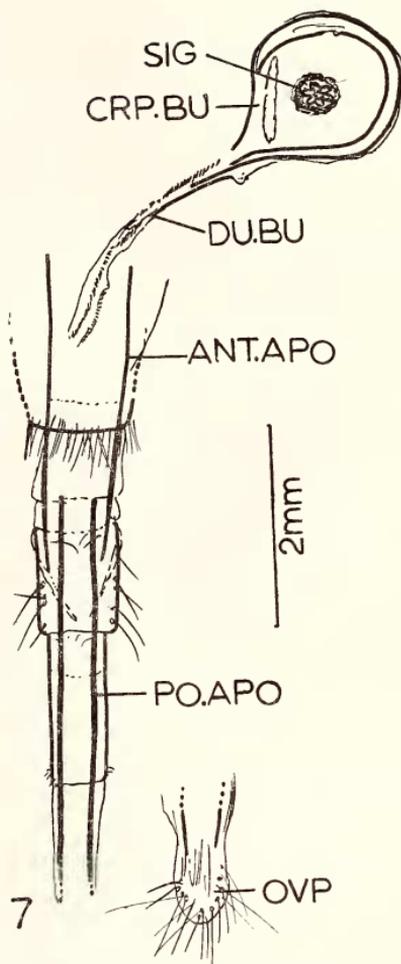


Fig. 7. Female genitalia.

*Abbreviations:*

ANT.APO, Anterior Apophyses; CRP.BU, Corpus Bursae; DU.BU, Ductus Bursae; OVP, Ovipositor; PO.APO, Posterior Apophyses; SIG, Signum.

like, strongly sclerotized cornutus and with a few loosely arranged denticles.

*Female genitalia*: Corpus bursae globular, membranous, lined by a sclerotized line on inner side; signum circular, well sclerotized and beautifully adorned with short denticles; ductus bursae membranous; anterior apophyses quite long, thin and well sclerotized; posterior apophyses much longer than anterior apophyses and slightly better sclerotized; ovipositor lobes more or less conical, each bearing short and long setae.

Alar expanse: Male: 20.5 mm to 23 mm

Female: 25.5 mm

*Material Examined*: Holotype: 1♂; 3♂♂ and 2♀♀ paratypes, India, Solan and Cham-baghat (Himachal Pradesh) (Collected by HS Rose). Material deposited in the Department of Zoology, Punjabi University, Patiala-147002, Punjab, India.

*Remarks*: The genus *Herculia* Walker includes fourteen species, two of which namely *imbecilis* Moore and *dharmsalae* Butler have been described from North India (Hampson

1896a). The species under reference is, thus, the third species from North India which differs prominently from all the described species belonging to genus *Herculia*. The new species, *Herculia hansii*, however, shows slight similarity to *H. imbecilis* Moore in having an ante-medial line on the dorsal surface of the fore wing while differing from it in lacking a dark speck at the end of the discal cell. The alar expanse of the latter is drastically larger (male 30 mm, female 34 mm) than as it occurs in the former (male 20.5 mm to 23 mm, female 25.5 mm.). The generic identity of *H. hansii* sp. nov. has been confirmed from the British Museum (Natural History), London.

#### ACKNOWLEDGEMENTS

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